

#6

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/517,638  
Source: PGT/10  
Date Processed by STIC: 12/27/04

# ***ENTERED***



PCT

## RAW SEQUENCE LISTING

DATE: 12/27/2004

PATENT APPLICATION: US/10/517,638

TIME: 07:43:13

Input Set : A:\06843.0048 Sequence Listing.txt

Output Set: N:\CRF4\12272004\J517638.raw

3 <110> APPLICANT: AMGEN, INC.  
 5 <120> TITLE OF INVENTION: HAMMERHEAD RIBOZYMES  
 7 <130> FILE REFERENCE: 06843.0048-00304  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/517,638  
 C--> 10 <141> CURRENT FILING DATE: 2004-12-13  
 12 <150> PRIOR APPLICATION NUMBER: 60/389,147  
 13 <151> PRIOR FILING DATE: 2002-06-13  
 15 <160> NUMBER OF SEQ ID NOS: 147  
 17 <170> SOFTWARE: PatentIn Ver. 2.1  
 19 <210> SEQ ID NO: 1  
 20 <211> LENGTH: 79  
 21 <212> TYPE: DNA  
 22 <213> ORGANISM: Artificial Sequence  
 24 <220> FEATURE:  
 25 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic template A  
 26 oligonucleotide  
 28 <220> FEATURE:  
 29 <221> NAME/KEY: modified base  
 30 <222> LOCATION: (17)..(24)  
 31 <223> OTHER INFORMATION: a, t, c or g  
 33 <400> SEQUENCE: 1  
 W--> 34 gggatttacc cggcagnnnn nnnnatccag ctgatgagtc ccaaatagga cgaaacgcct 60  
 35 tcgggcgtcc tggatctgc 79  
 38 <210> SEQ ID NO: 2  
 39 <211> LENGTH: 33  
 40 <212> TYPE: DNA  
 41 <213> ORGANISM: Artificial Sequence  
 43 <220> FEATURE:  
 44 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer  
 46 <400> SEQUENCE: 2  
 47 taatacgact cactataggg atttaccgag cag 33  
 50 <210> SEQ ID NO: 3  
 51 <211> LENGTH: 18  
 52 <212> TYPE: DNA  
 53 <213> ORGANISM: Artificial Sequence  
 55 <220> FEATURE:  
 56 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer  
 58 <400> SEQUENCE: 3  
 59 gcagatccag gacgcccg 18  
 62 <210> SEQ ID NO: 4  
 63 <211> LENGTH: 27  
 64 <212> TYPE: DNA  
 65 <213> ORGANISM: Artificial Sequence

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67 <220> FEATURE:
68 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic antisense-A
69     oligonucleotide
71 <400> SEQUENCE: 4
72 gtcctatttg ggactcatca gctggat                27
75 <210> SEQ ID NO: 5
76 <211> LENGTH: 66
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial Sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic template B
82     oligonucleotide
84 <220> FEATURE:
85 <221> NAME/KEY: modified_base
86 <222> LOCATION: (27)..(32)
87 <223> OTHER INFORMATION: a, t, c or g
89 <400> SEQUENCE: 5
W--> 90 gggacttaag cccactgatg agtcgcnnnn nngcgacgaa acgccttcgg gcgtctgggc 60
91 agtccc                                         66
94 <210> SEQ ID NO: 6
95 <211> LENGTH: 34
96 <212> TYPE: DNA
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
102 <400> SEQUENCE: 6
103 taatacgact cactataggg acttaagccc actg                34
106 <210> SEQ ID NO: 7
107 <211> LENGTH: 29
108 <212> TYPE: DNA
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
114 <400> SEQUENCE: 7
115 gggactgccc agacgcccga aggcgtttc                29
118 <210> SEQ ID NO: 8
119 <211> LENGTH: 26
120 <212> TYPE: DNA
121 <213> ORGANISM: Artificial Sequence
123 <220> FEATURE:
124 <223> OTHER INFORMATION: Description of Artificial Sequence: antisense B
125     oligonucleotide
127 <400> SEQUENCE: 8
128 gcgactcatc agtgggctta agtccc                26
131 <210> SEQ ID NO: 9
132 <211> LENGTH: 79
133 <212> TYPE: RNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:

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137 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
138     oligonucleotide
140 <220> FEATURE:
141 <221> NAME/KEY: modified_base
142 <222> LOCATION: (17)..(24)
143 <223> OTHER INFORMATION: a, u, c or g
145 <400> SEQUENCE: 9
W--> 146 gggauuuacc cggcagnnnn nnnnauccag cugaugaguc ccaaauagga cgaaacgccu 60
147 ucgggcgucc uggaucugc 79
150 <210> SEQ ID NO: 10
151 <211> LENGTH: 78
152 <212> TYPE: RNA
153 <213> ORGANISM: Artificial Sequence
155 <220> FEATURE:
156 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
157     oligonucleotide
159 <400> SEQUENCE: 10
160 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgcuu 60
161 cgggcguccu ggaucugc 78
164 <210> SEQ ID NO: 11
165 <211> LENGTH: 76
166 <212> TYPE: RNA
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
171     oligonucleotide
173 <400> SEQUENCE: 11
174 gauuuacccg gcaggggcu cgauccagcu gaugaguccc aaauaggacg aaacgccucg 60
175 ggcguccugg aucugc 76
178 <210> SEQ ID NO: 12
179 <211> LENGTH: 78
180 <212> TYPE: RNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
185     oligonucleotide
187 <400> SEQUENCE: 12
188 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
189 cgggcguccu ggaucugc 78
192 <210> SEQ ID NO: 13
193 <211> LENGTH: 78
194 <212> TYPE: RNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
199     oligonucleotide
201 <400> SEQUENCE: 13
202 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
203 cgggcguccu ggaucugc 78

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Input Set : A:\06843.0048 Sequence Listing.txt

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206 <210> SEQ ID NO: 14
207 <211> LENGTH: 78
208 <212> TYPE: RNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
213     oligonucleotide
215 <400> SEQUENCE: 14
216 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
217 cgggcguccu ggaucugc                                     78
220 <210> SEQ ID NO: 15
221 <211> LENGTH: 78
222 <212> TYPE: RNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
227     oligonucleotide
229 <400> SEQUENCE: 15
230 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
231 cgggcguccu ggaucugc                                     78
234 <210> SEQ ID NO: 16
235 <211> LENGTH: 78
236 <212> TYPE: RNA
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
241     oligonucleotide
243 <400> SEQUENCE: 16
244 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
245 cgggcguccu ggaucugc                                     78
248 <210> SEQ ID NO: 17
249 <211> LENGTH: 78
250 <212> TYPE: RNA
251 <213> ORGANISM: Artificial Sequence
253 <220> FEATURE:
254 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
255     oligonucleotide
257 <400> SEQUENCE: 17
258 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
259 cgggcguccu ggaucugc                                     78
262 <210> SEQ ID NO: 18
263 <211> LENGTH: 78
264 <212> TYPE: RNA
265 <213> ORGANISM: Artificial Sequence
267 <220> FEATURE:
268 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
269     oligonucleotide
271 <400> SEQUENCE: 18
272 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60

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273 cgggcguccu ggaucugc 78
276 <210> SEQ ID NO: 19
277 <211> LENGTH: 78
278 <212> TYPE: RNA
279 <213> ORGANISM: Artificial Sequence
281 <220> FEATURE:
282 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
283     oligonucleotide
285 <400> SEQUENCE: 19
286 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
287 cgggcguccu ggaucugc 78
290 <210> SEQ ID NO: 20
291 <211> LENGTH: 78
292 <212> TYPE: RNA
293 <213> ORGANISM: Artificial Sequence
295 <220> FEATURE:
296 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
297     oligonucleotide
299 <400> SEQUENCE: 20
300 gggauuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
301 cgggcguccu ggaucugc 78
304 <210> SEQ ID NO: 21
305 <211> LENGTH: 78
306 <212> TYPE: RNA
307 <213> ORGANISM: Artificial Sequence
309 <220> FEATURE:
310 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
311     oligonucleotide
313 <400> SEQUENCE: 21
314 ugauuuuacc cggcaggggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
315 cgggcguccu ggaucugc 78
318 <210> SEQ ID NO: 22
319 <211> LENGTH: 78
320 <212> TYPE: RNA
321 <213> ORGANISM: Artificial Sequence
323 <220> FEATURE:
324 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
325     oligonucleotide
327 <400> SEQUENCE: 22
328 gggauuuacc cggcagcggc uacgauccag cugaugaguc ccaaauagga cgaaacgccu 60
329 cgggcguccu ggaucugc 78
332 <210> SEQ ID NO: 23
333 <211> LENGTH: 78
334 <212> TYPE: RNA
335 <213> ORGANISM: Artificial Sequence
337 <220> FEATURE:
338 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
339     oligonucleotide
341 <400> SEQUENCE: 23

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RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 12/27/2004  
PATENT APPLICATION: US/10/517,638      TIME: 07:43:14

Input Set : A:\06843.0048 Sequence Listing.txt  
Output Set: N:\CRF4\12272004\J517638.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 17,18,19,20,21,22,23,24  
Seq#:5; N Pos. 27,28,29,30,31,32  
Seq#:9; N Pos. 17,18,19,20,21,22,23,24  
Seq#:45; N Pos. 27,28,29,30,31,32  
Seq#:83; N Pos. 27,28,29,30,31,32  
Seq#:147; N Pos. 17,18,19,20,21,22,23,24

## VERIFICATION SUMMARY

DATE: 12/27/2004

PATENT APPLICATION: US/10/517,638

TIME: 07:43:14

Input Set : A:\06843.0048 Sequence Listing.txt

Output Set: N:\CRF4\12272004\J517638.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:34 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0  
L:1078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83 after pos.:0  
L:1885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:0